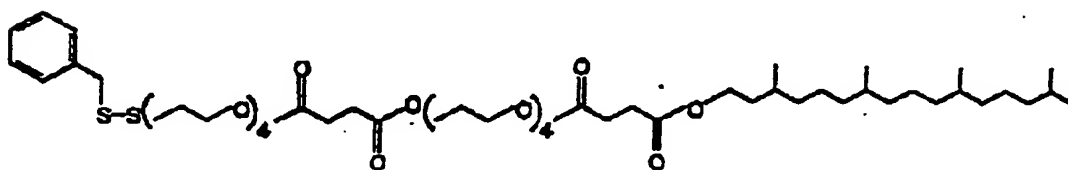


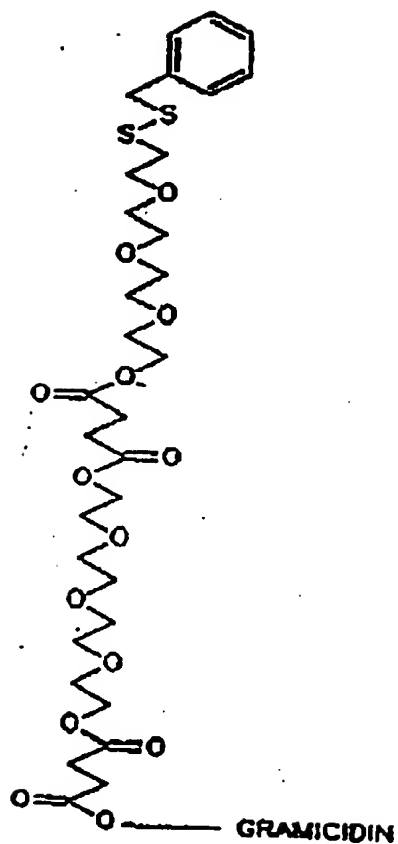
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LINKER LIPID A

FIGURE 1

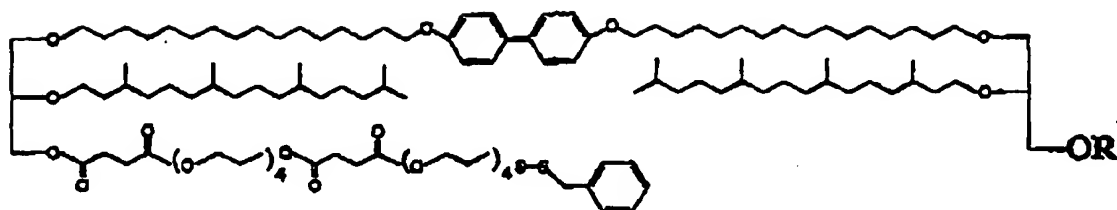
2/15



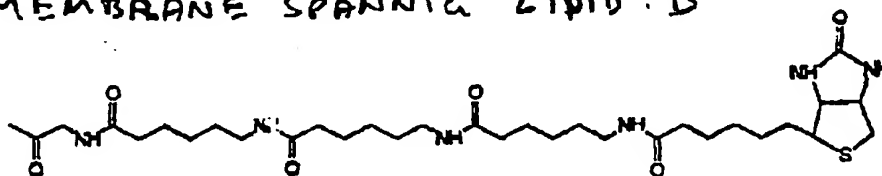
LINKER GRAMICIDIN B

FIGURE 2

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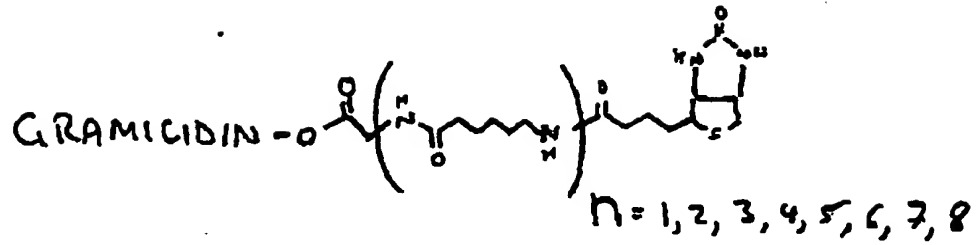
MEMBRANE SPANNING LIPID D



MEMBRANE SPANNING LIPID C

FIGURE 3

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BIOTINYLATED GRAMICIDIN E

FIGURE 4

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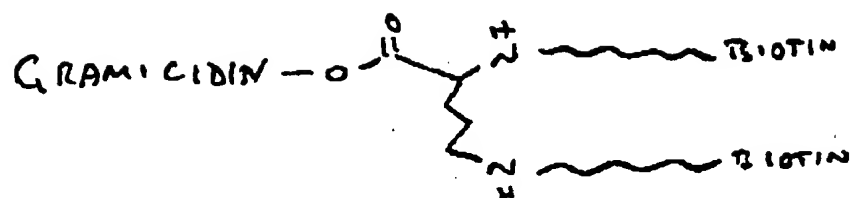


FIGURE 5

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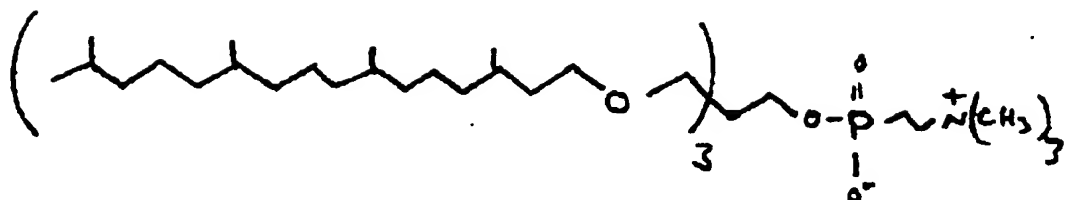


FIGURE 6

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ADDITION OF 100% (v/v) WHOLE BLOOD TO MONOLAYER MEMBRANES

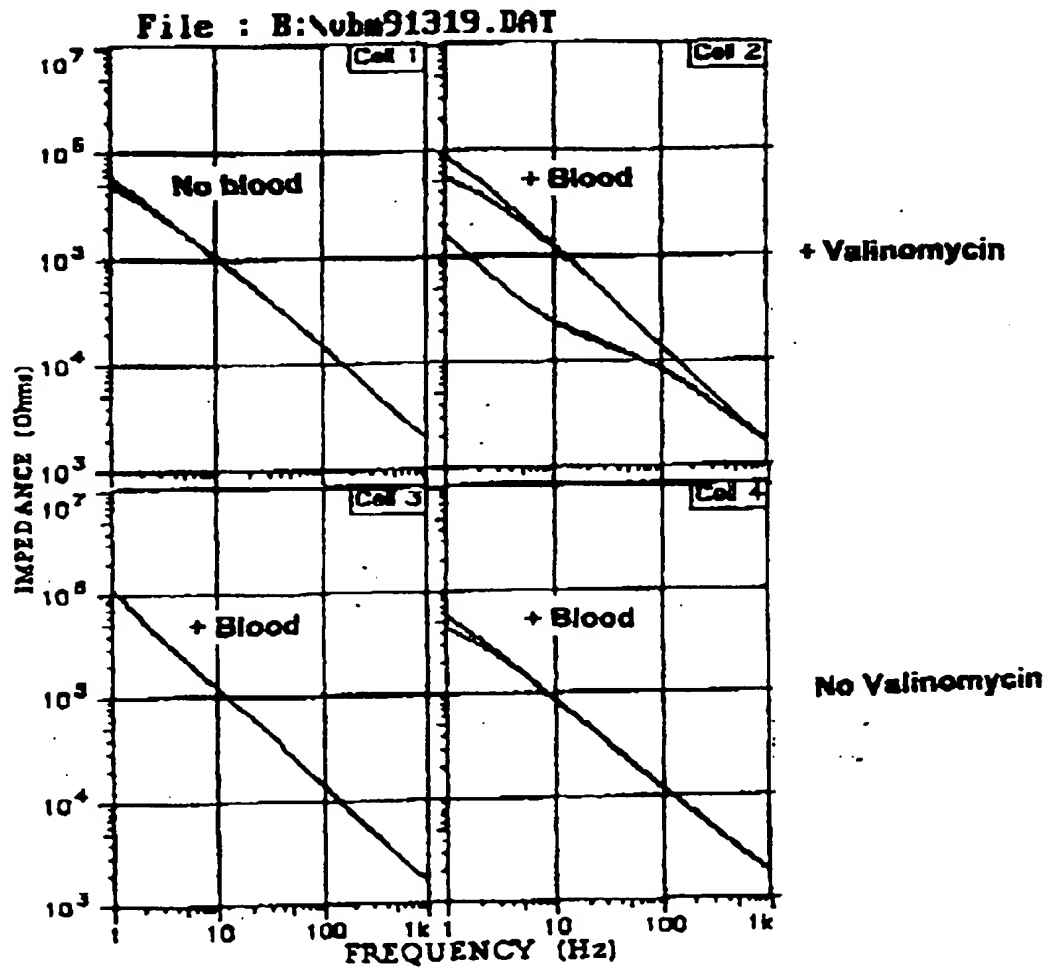


Figure 7

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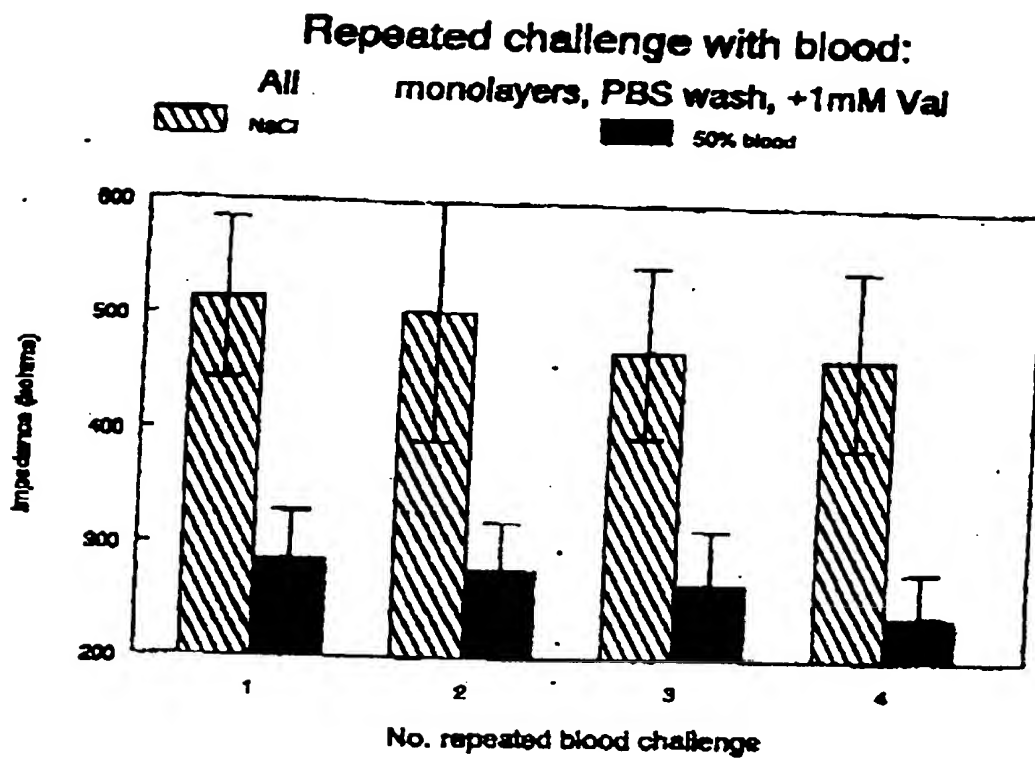
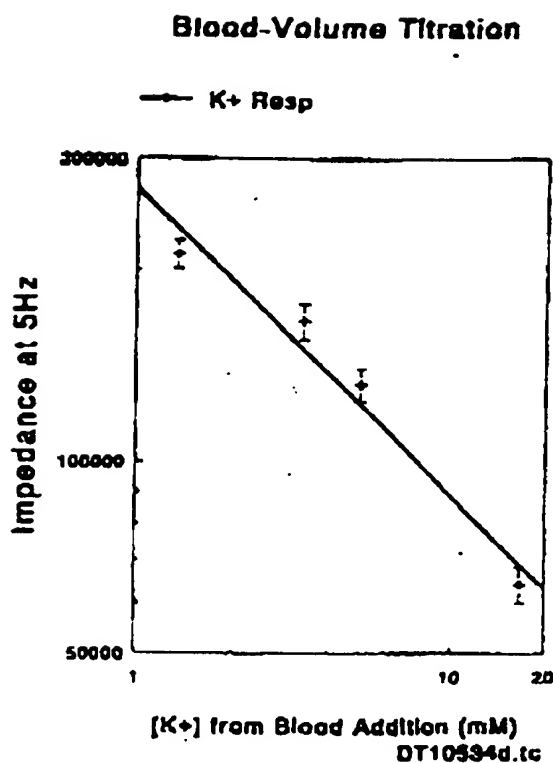


Figure 8

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Blood
[K⁺] in well

1.34mM

3.35mM

5.03mM

16.75mM

bloodvl.tc
(average 4 electrodes)

Figure 9: Human whole blood K⁺ titration in biosensor membrane.

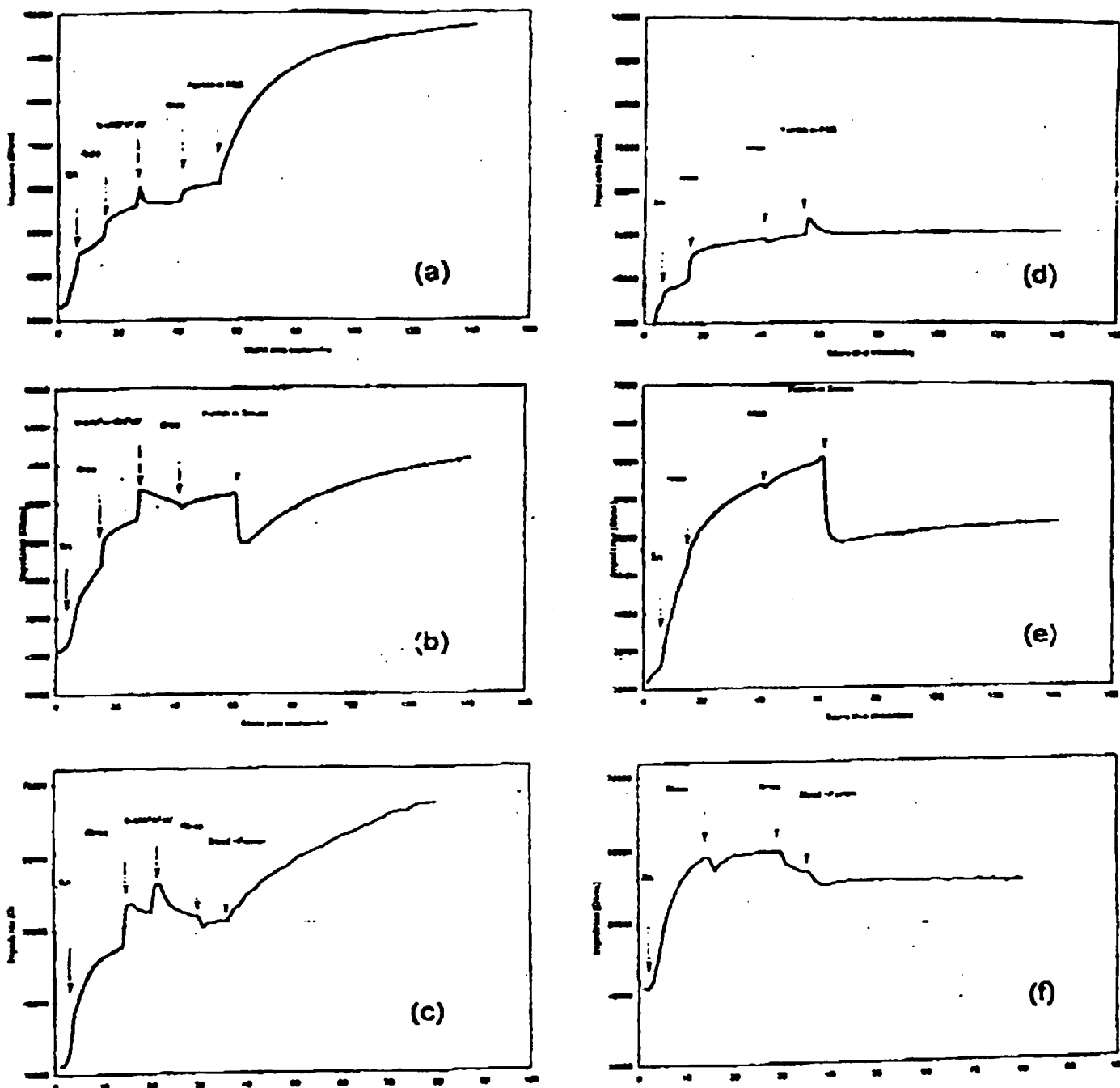


Figure 10 : 500pM Ferritin response in human whole blood and serum.

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ENDOGENOUS SERUM FERRITIN DETECTION FROM 4 DIFFERENT VOLUNTEERS

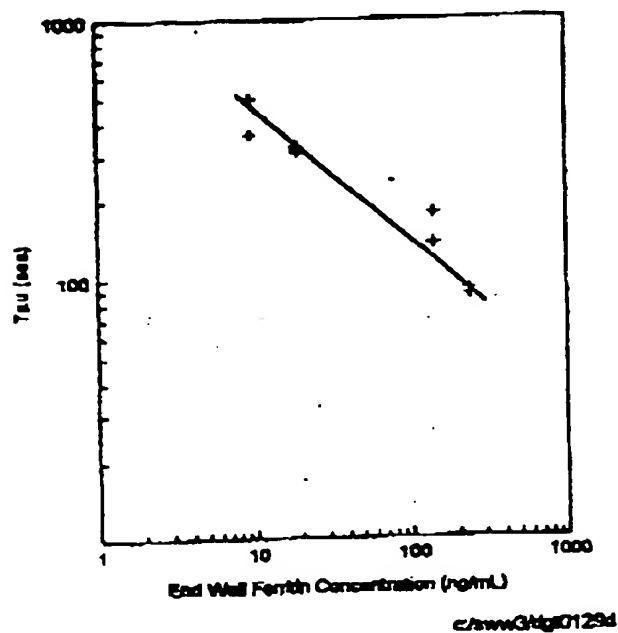
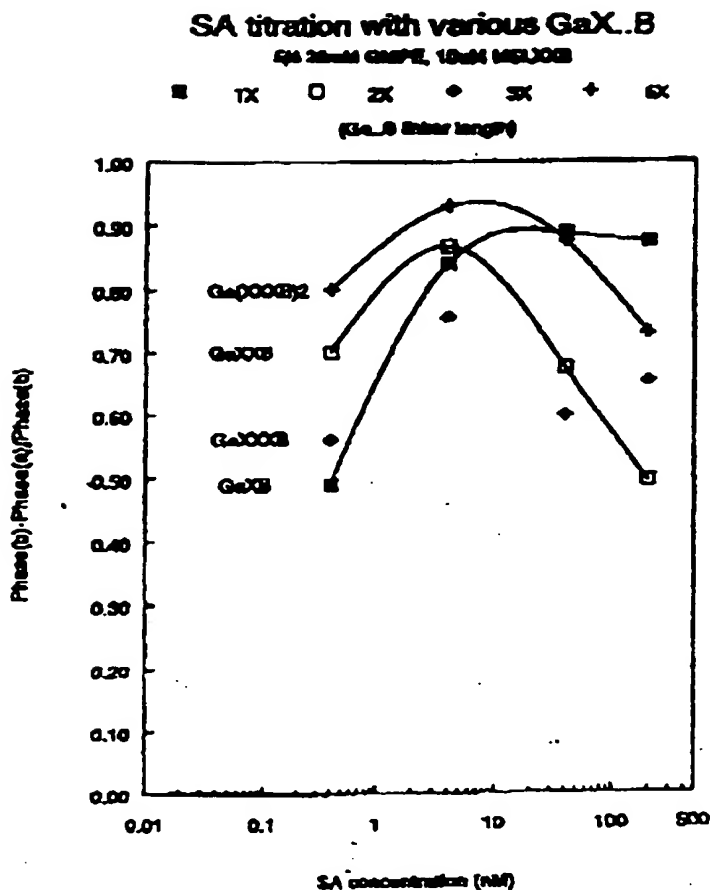


Figure 11: Ferritin titration curve based on endogenous ferritin levels in human serum.

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**METHOD: 5/4 membranes**

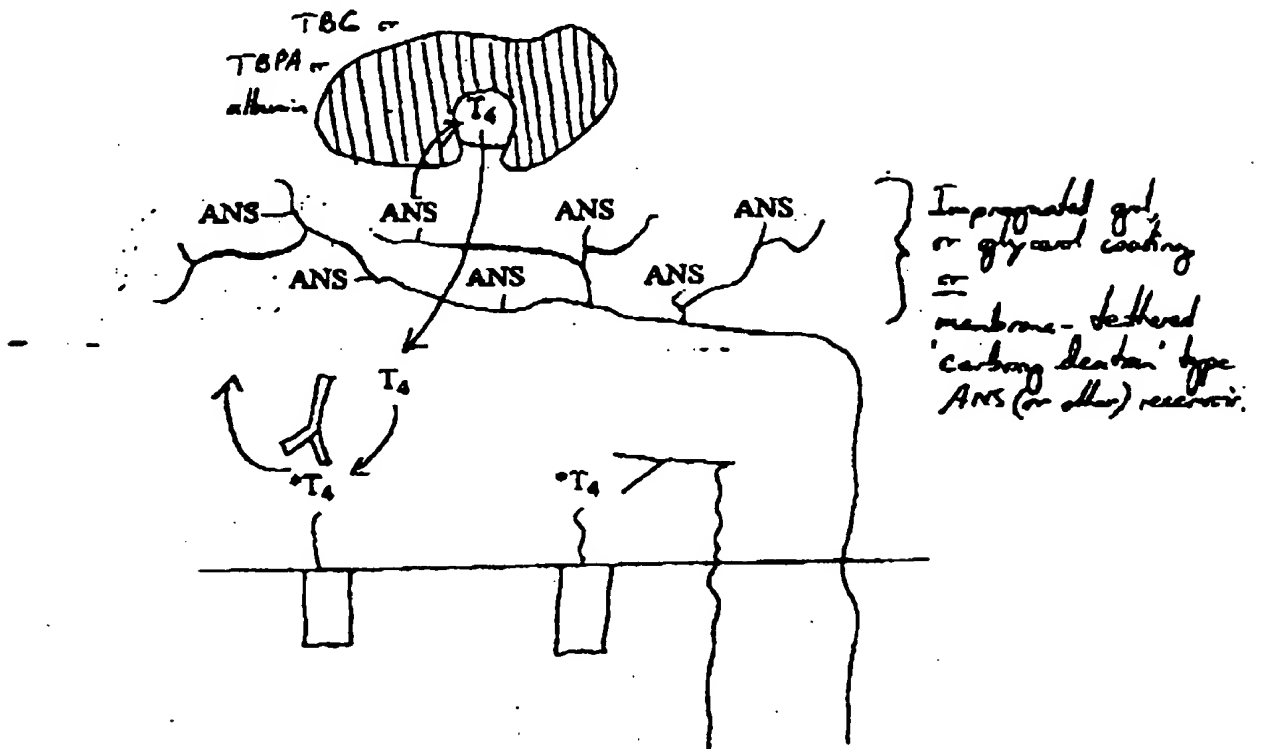
1st layers: 10mM GMPE
 1mM DLP
 10uM MSLXXB
 0.8mM MAAD
 0.1uM GaYYSS

2nd layer: 28mM GMPE
 0.28uM GaX..B chosen from the following:
 GaXB
 GaXXB
 GaXXXB
 Ga(XXXB)2

Figure 12

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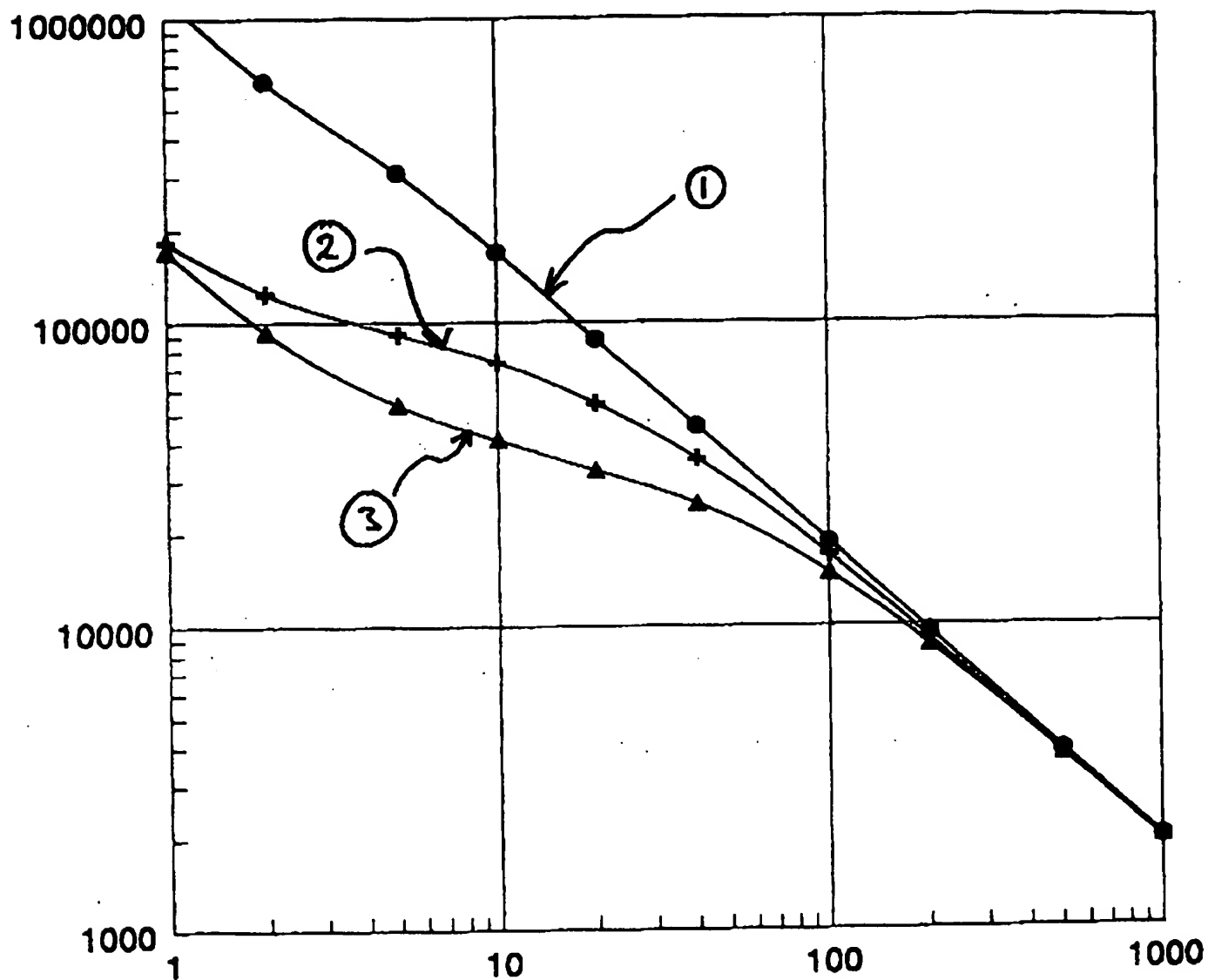
Figure 13

EXAMPLE OF T_4 ASSAY WITH AMBRI BIOSENSOR

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Figure 14



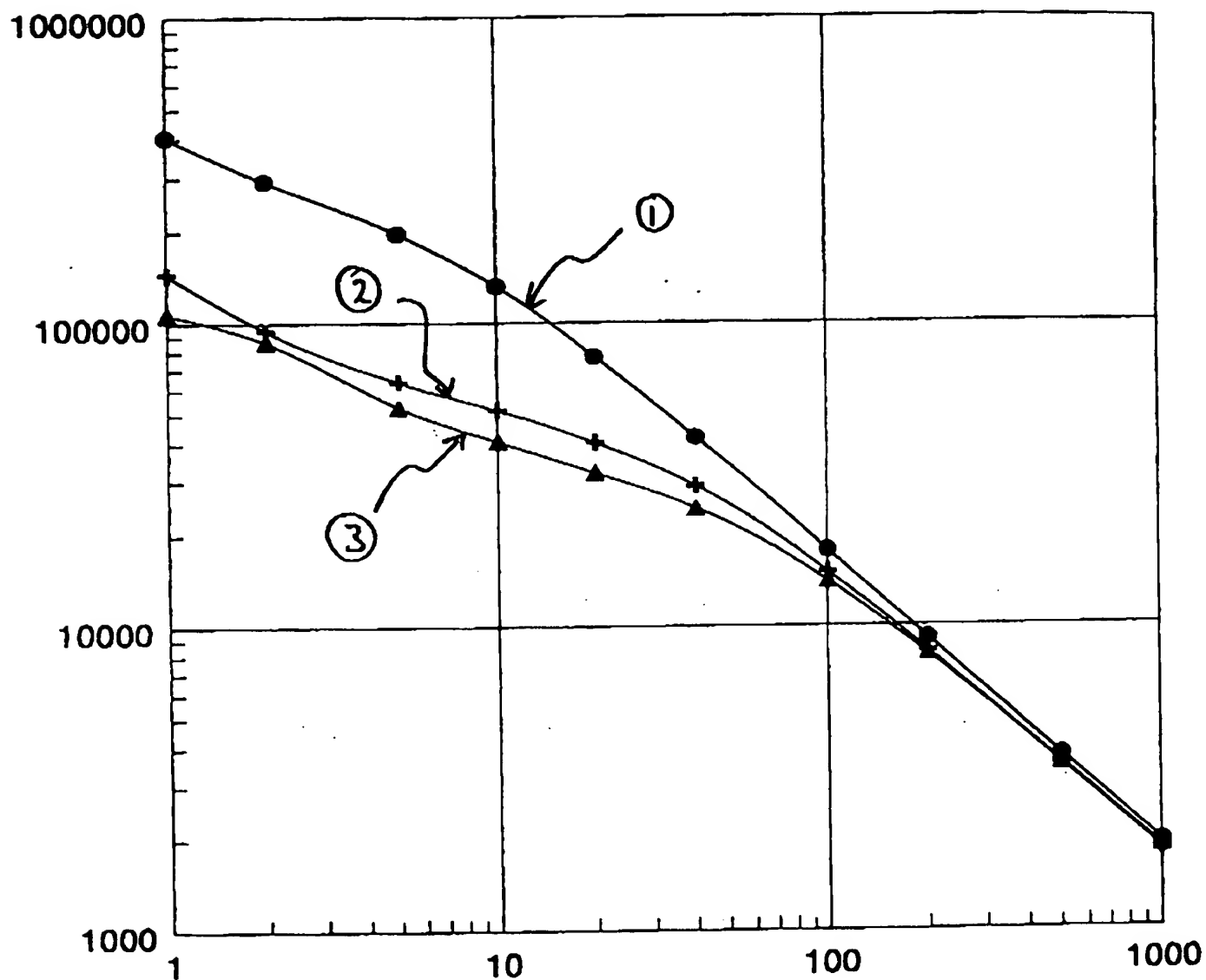
(1) before the addition of gramicidin/SDS

(2) after the addition of gramicidin/SDS; streptavidin and biotinylated Fab'

(3) after the addition of ferritin

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Figure 15

(1) before addition of gramicidin/streptavidin

(2) after addition of gramicidin/streptavidin and biotinylated Fab's

(3) after addition of TSH